

## **AUTO FOCUS FOR A FLOW IMAGING SYSTEM**

### **Abstract of the Disclosure**

A pair of optical gratings are used to modulate light from an object, and the modulated light from either optical is used to determine the velocity of the object. Each optical grating is offset from a reference focal point by the same distance, one grating being offset in a positive direction, the other in a negative direction. Signals produced in response to the modulated light can be processed to determine a direction in which a primary collection lens should be moved in order to improve a focus of the imaging system on the object. The lens is moved incrementally in the direction so determined, and the process is repeated until an optimal focus is achieved. In a preferred embodiment, the signals are weighted, so that the optical grating disposed closest to the optimal focus position contributes the most to velocity detection.